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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,666	07/23/2001	Georg Koepff	10191/1893	6421

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EXAMINER

NGUYEN, XUAN LAN T

ART UNIT PAPER NUMBER

3683

DATE MAILED: 03/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,666

Applicant(s)

KOEPFF ET AL.

Examiner

Lan Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.

- 4) ☐ Interview Summary (PTO-413) Paper No(s).
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species B in Paper No. 9 is acknowledged.

Drawings

2. The drawings are objected to because:
 - The drawings contain hand written labels.
 - The top part of Figure 4 is blurry due to bad quality of photocopying.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - A brief description of Figure 3a is missing.
 - Page 4, line 30, "PHSVA" should be --PRVR--.
 - Page 7, line 10, "TVP" should be --TVPS--.
 - In general, the names for the components, such as "PHSVA", "TVPS", etc., should be spelled out.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- Claims 1, 2 and 9 claim "a second fault". It is believed that a second fault is neither described nor disclosed in the specification and the drawings. The Examiner understands to invention as: when a fault occurs in the front axle brake circuit, the second power unit would take over the control of the front axle brake circuit. This is illustrated in Figure 12 wherein the first box (not numbered) identifies a fault in front axle brake actuator, the boxes 602 and 608 would further determine the location of this fault; whether said fault is in the accumulator circuit or the pump circuit or a failure of the power E1. A second fault is neither disclosed nor illustrated. In order to expedite the prosecution of the instant invention, claims 1-9 have been examined as having one fault. Hence, in claims 3 and 6-8, lines 2, the limitation "in a fault condition" has been treated as --in the fault condition--.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear of the claimed limitations in claims 4 and 5. If when a fault is detected and the second control is taking over, then why would the vehicle be slowed down unnecessarily? Also, is the limiting of the speed against/without the driver's wish? Would this cause a safety problem if the vehicle is in traffic when the control slows down the vehicle against the driver's wish? It can only be guessed that this limitation pertains to box 614 of Figure 12; wherein engine management or transmission management might or might not be intervened.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Boehringer.

Re: claim 1, Boehringer shows a method for controlling wheel brakes, as in the invention, comprising: generating control driving signals for the first group of valve arrangement 16 and a second group of valve arrangement 18; when a fault is detected (i.e. pressure falls below a threshold level, Abstract, lines 7 and 8), a power for an

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activation of the one of the valve arrangements originating from the second power circuit, Abstract, lines 8-12.

Re: claim 4, Boehringer is silent of engine management when the fault is detected. This is the equivalent of "might or might not".

Re: claims 3, 6 and 8, Boehringer shows in the Abstract, that the switching valves switch the control of the first axle to the second axle, and vice versa, depending on the location of the fault.

10. Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al.

Re: claim 2, Kondo et al. show a method of controlling wheel brakes, as in the present invention, comprising: ECU 39 is generating control signals to control the wheel brakes 34 via valve 1. When there exist an electric failure, valve 11 is actuated to isolate accumulator 30 from pump 31, column 4, lines 61-66.

Re: claim 5, Kondo is silent of engine management when the fault is detected. This is the equivalent of "might or might not".

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

12. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Corio et al.

Re: claims 1, 3 and 6, Corio et al. show a method for controlling wheel brakes, as in the present invention, comprising: a first and a second valve arrangements as left and right brakes; wherein the first and second valve arrangements having an independent power supply AC1, DC1 and AC2, DC2, respectively. From column 1, line 66 to column 2, line 5, Corio discloses that a power source ACess, DCess is from a parallel combination of AC1, DC1 and AC2, DC2 wherein this power source would be used in case of failure of either of the AC1, DC1 and AC2, DC2 sources. Corio further shows control units BSCU1 and BSCU2 as redundant control units capable of controlling either the first or the second valve arrangement.

Re: claim 4, Boehringer is silent of engine management when the fault is detected. This is the equivalent of "might or might not".

13. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Corio et al.

Corio et al. show a computer program for controlling wheel brakes, as in the present invention, comprising: a first and a second valve arrangements as left and right brakes; wherein the first and second valve arrangements having an independent power supply AC1, DC1 and AC2, DC2, respectively. From column 1, line 66 to column 2, line

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5, Corio discloses that a power source ACess, DCess is from a parallel combination of AC1, DC1 and AC2, DC2 wherein this power source would be used in case of failure of either of the AC1, DC1 and AC2, DC2 sources. Corio further shows control units BSCU1 and BSCU2 as redundant control units capable of controlling either the first or the second valve arrangement. Note that the phrase "computer program" has been interpreted broadly to be the same as Applicant wherein Corio discloses BSCU1 and BSCU2 as digital brake control units; inherently, in order to accomplish the controlling, a computer program is in place to perform all the controlling tasks.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corio et al. in view of Boehringer.

Corio's method of brake control, as discussed in the above rejection of claim 1, is silent of the step of activating an additional valve arrangement corresponding to front wheel brakes. Boehringer teaches in the "Background of the Invention", column 1, lines 40-48, that it is old and well known in the aircraft brake art to have redundancy of equipments in order to meet safety requirement and to carry out a braking action in case of emergency. It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to have included a step of activating an additional valve arrangement in the method of brake control of Corio in order to meet safety requirement and to carry out a braking action in case of emergency as taught by Boehringer.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. in view of Corio et al.

Kondo's method of controlling wheel brakes, as discussed in the rejection of claim 2, is silent of a step of controlling the front brakes by a control module of the rear brakes. Corio et al. teach the concept of having independent controllers BSCU1 and BSCU2 wherein the two controllers serve as a back up for the other in case of emergency. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have including a step of controlling the front brakes by a control module of the rear brakes in the method of Kondo in order to have a back-up to control the wheel brakes in case of emergency such as failure of one of the controllers as taught by Corio.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP 6,299,261 is cited as having a brake controlling system with dual power units.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is 703-308-8347. The examiner can normally be reached on M-F, 9 to 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4177.

XLN

XLN
March 13, 2003

CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER
